

Some Results from a Household Tax Model for Indiana

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The tables on the next page present some results from a model of household taxes paid in Indiana. Included are the major Federal, state and local taxes. The households are families of three, with two adults and one child. This is near the average household size in Indiana.

Data on the property, income and spending of representative households are used to calculate tax payments for the various taxes. Incomes and home values for Indiana households are available for the Bureau of Census American Community Survey, a new data source based on a survey of three million people nationwide. Data are for Indiana households for 2006. These data are the basis for calculating property and income tax payments. Expenditures are based on the U.S. Bureau of Labor Statistics Consumer Expenditure Survey, which shows spending on 73 categories of goods and services. These data are the basis for calculating sales and excise tax payments. Data on vehicle values from the Federal Reserve's Survey of Consumer Finances are used for motor vehicle excise tax payments.

The first table reports the tax payments estimated for five representative households. The median homeowner pays \$5,423 in Indiana state and local taxes, 9.7% of income. It pays \$7,809 in Federal Taxes, 14.0% of income. In total, it pays \$13,232, 23.8% of income.

The second table shows the individual taxes as shares of income. The property tax as it is billed to homeowners appears to be progressive, which means that the percentage of income paid to the tax increases as incomes increase. Upper income households pay more as a percentage of income. The property tax is progressive because the existing homestead deduction is a fixed \$45,000 up to 50% of assessed value. This is a much larger percentage of low-valued homes than high-valued homes, so the percentage reduction in taxes on low-valued homes is greater. The property tax will not appear so progressive if we count the property tax that renters pay as part of their rents, however. Renters have much lower incomes than homeowners, so counting even a part of the property tax their landlords pay will produce a high percentage of income.

The sales tax is a regressive tax. The low income homeowner pays 3.4% of its income in sales taxes, while the upper income homeowner pays only 1.4%. This is because upper income households save a large share of their incomes, so that part of their incomes are not touched by the sales tax.

The state and county income taxes have flat rates, yet they are progressive. This is because of the personal exemptions, which exempt a larger share of lower income household's income. Federal income taxes are steeply progressive, with higher income households paying substantially higher shares of income. The negative number for the lowest income household results from the Federal earned income credit.

All of the excise taxes are regressive. Like the sales tax, this results from the fact that upper income households save more and spend less as a share of income.

Indiana taxes in total appear approximately proportional to income, over the income range in Tables 3 and 4. The four homeowners are all within six-tenths of ten percent of income. Total taxes are progressive. This is due almost entirely to the progressive Federal income tax.

Details about these results will appear soon in a longer paper.

Tax Payments by Five Households

	Median Homeowner	Renter Low Income	Homeowners Low Income	Mid Income	High Income
Home Value	120,700	Renter	60,000	150,000	375,000
Income	55,634	27,500	27,500	62,500	150,000
Property Tax	1,326	-	492	1,860	5,962
Sales Tax	1,200	918	932	1,265	2,040
County/State Income Tax	2,192	828	916	2,470	6,292
Tobacco Tax	262	268	268	261	244
Alcoholic Beverage Tax	16	11	11	18	33
Motor Fuel Tax	233	192	191	242	361
Motor Vehicle Excise Tax	195	108	108	213	347
Total Indiana Taxes	5,423	2,326	2,918	6,329	15,279
Percent of Income	9.7%	8.5%	10.6%	10.1%	10.2%
Federal Income Tax	3,149	(1,237)	(1,237)	3,994	21,539
Social Security Tax	4,256	2,104	2,104	4,781	8,220
Federal Tobacco Tax	90	92	92	89	83
Federal Alcoholic Bev. Tax	77	52	51	84	158
Federal Motor Fuel Tax	238	197	196	248	369
Total Federal Taxes	7,809	1,207	1,205	9,196	30,370
Percent of Income	14.0%	4.4%	4.4%	14.7%	20.2%
Total Taxes	13,232	3,533	4,124	15,525	45,649
Percent of Income	23.8%	12.8%	15.0%	24.8%	30.4%

Tax Payments by Five Households: Percent of Income

	Median Homeowner	Renter Low Income	Homeowners Low Income	Mid Income	High Income
Home Value	120,700	Renter	60,000	150,000	375,000
Income	55,634	27,500	27,500	62,500	150,000
Property Tax	2.4%	0.0%	1.8%	3.0%	4.0%
Sales Tax	2.2%	3.3%	3.4%	2.0%	1.4%
County/State Income Tax	3.9%	3.0%	3.3%	4.0%	4.2%
Tobacco Tax	0.5%	1.0%	1.0%	0.4%	0.2%
Alcoholic Beverage Tax	0.03%	0.04%	0.04%	0.03%	0.02%
Motor Fuel Tax	0.4%	0.7%	0.7%	0.4%	0.2%
Motor Vehicle Excise Tax	0.4%	0.4%	0.4%	0.3%	0.2%
Total Indiana Taxes	9.7%	8.5%	10.6%	10.1%	10.2%
Federal Income Tax	5.7%	-4.5%	-4.5%	6.4%	14.4%
Social Security Tax	7.7%	7.7%	7.7%	7.7%	5.5%
Federal Tobacco Tax	0.2%	0.3%	0.3%	0.1%	0.1%
Federal Alcoholic Bev. Tax	0.1%	0.2%	0.2%	0.1%	0.1%
Federal Motor Fuel Tax	0.4%	0.7%	0.7%	0.4%	0.2%
Total Federal Taxes	14.0%	4.4%	4.4%	14.7%	20.2%
Total Taxes	23.8%	12.8%	15.0%	24.8%	30.4%